CLAIMS

1. A compressor comprising:

a cylindrical sealed container (**10**) to which an intake pipe (**42**) and a discharge pipe (**14**) are connected;

a compression mechanism (**20**) which compresses gas introduced from the intake pipe (**42**) and discharges it into the sealed container (**10**);

a motor (**30**) connected to a drive shaft (**31**) of the compression mechanism (**20**); and

an elastic support member (**65**) that supports the compression mechanism (**20**) and the motor (**30**), both of which are accommodated in the sealed container (**10**),

wherein an intake passage (**40**) which passes through the compression mechanism (**20**) in a radial direction thereof and which opens in an outer face of the compression mechanism (**20**) is formed in the compression mechanism (**20**),

the intake pipe (**42**) is arranged so as to face at a terminal end thereof an opening part of the intake passage (**20**) in the outer face of the compression mechanism (**20**),

one of a peripheral part of the intake passage (**40**) in the outer face of the compression mechanism (**20**) and a part of an inner face of the sealed container (**10**) which faces the peripheral part serves as a sealed face, and

a sealing mechanism (**S**) including a sealing member (**45**) pressed against the sealed face for connecting the intake pipe (**42**) and the intake passage (**40**) with each other is provided for sealing a gap between the compression mechanism (**20**) and the sealed container (**10**).

2. The compressor of claim 1,

wherein the part of the inner face of the sealed container (**10**) which faces the peripheral part of the intake passage (**40**) in the outer face of the compression mechanism (**20**) serves as the sealed face,

an annular concave groove (**23a**) is formed so as to surround the opening part of

the intake passage (**40**) in the outer face of the compression mechanism (**20**),

the sealing member (**45**) is formed in a ring shape, is fitted in the concave groove (**23a**), and is interposed between a bottom face of the concave groove (**23a**) and the sealed face so as to be deformed elastically, and

the concave groove (**23a**) and the sealing member (**45**) compose the sealing mechanism (**S**).

3. The compressor of claim 2,

wherein the sealing member is an O ring (**45**).

4] The compressor of claim 2,

wherein the sealing member (**70**) is formed in a U-shape in section so as to be deformed in a thickness direction elastically.

5] The compressor of claim 1,

wherein the sealed container (**10**) includes a coupling member (**43**) having a tip end face facing the peripheral part of the intake passage (**40**) in the outer face of the compression mechanism (**20**) and a base end to which the intake pipe (**42**) is mounted,

the peripheral part of the intake passage (**40**) in the outer face of the compression mechanism (**20**) serves as the sealed face,

a tip end part of the coupling member (**43**) is formed in a cylindrical shape and composes a cylindrical portion (**71**),

the sealing member (**72**) is formed in a ring shape rectangular in section and is fitted freely to the cylindrical portion (**71**), and

the sealing mechanism (**S**) includes a pressing member (**75**) for making pressing force to work on the sealing member (**72**) so that a tip end face of the sealing member (**72**) is in contact with the sealed face.

6] The compressor of claim 5,

wherein the pressing member is a spring (**75**) that is in contact with a base end face of the sealing member (**72**) and the coupling member (**43**).

7 The compressor of Claim 6,

wherein an entire inner peripheral face of the sealing member (**72**) slides on an outer peripheral face of the cylindrical portion (**71**).

8 The compressor of claim 5,

wherein an inner peripheral groove (**72a**) is formed around an entire perimeter of an inner peripheral face of the sealing member (**72**), and

the sealing mechanism (**S**) includes an O ring (**76**) fitted in the inner peripheral groove (**72a**) so as to be in contact with an outer peripheral face of the cylindrical portion (**71**).

9 The compressor of claim 5,

wherein the pressing member is an O ring (**77**) in contact with both a base end face of the sealing member (**72**) and the coupling member (**43**).

10 The compressor of claim 1,

wherein the sealed container (**10**) includes a cylindrical shell (**11**) extending vertically, an upper head (**12**) that blocks an upper end of the shell (**11**), and a lower head (**13**) that blocks a lower end of the shell (**11**),

a lower end of the upper head (**12**) is fitted inside the shell (**11**), and

a stopper (**32a**) that restricts the amount of displacement of the compression mechanism (**20**) and the motor (**30**) by being in contact with the lower end of the upper head (**12**) is provided to the compression mechanism (**20**) or the motor (**30**) which are supported by the elastic support member (**65**).

11 The compressor of claim 1,

wherein the compression mechanism (**20**) is arranged below the motor (**30**) in the sealed container (**10**),

the compression mechanism (**20**) is fixed to the elastic support member (**65**) by means of a plate-shaped stay member (**61**) and a discharge passage (**57**) for discharging compressed gas into the sealed container (**10**) is formed in a lower face of the compression

mechanism (**20**), and

the stay member (**61**) covers an opening part of the discharge passage (**57**) in the lower face of the compression mechanism (**20**).

12 The compressor of claim 5,

wherein in the sealing mechanism (**S**), an outer peripheral groove (**71a**) is formed around an entire perimeter of an outer peripheral face of the cylindrical portion (**71**), an annular ring member (**78**) a part of which is cut out is fitted in the outer peripheral groove (**71a**), an outer peripheral face of the ring member (**78**) is pressed against an inner peripheral face of the sealing member (**72**) by restoring force of the elastically deformed ring member (**78**) which expands naturally in a radial direction so as to seal a gap between the cylindrical portion (**71**) and the sealing member (**82**).

13 The compressor of claim 12,

wherein the sealing member (**72**) and the ring member (**78**) are made of metal.

14 The compressor of claim 1, further comprising:

a differential pressure canceling mechanism (**52**) that makes intake gas pressure to work on the compression mechanism (**20**) so as to reduce pressing force by discharge gas within the sealed container (**10**) which works on the compression mechanism (**20**) towards the intake pipe (**42**).

15. The compressor of claim 14,

wherein the compression mechanism (**20**) is composed of a rotary fluid machinery in which a compression chamber (**22**) is formed between an inner peripheral face of a cylinder (**23**) and an outer peripheral face of a piston (**25**), and

the differential pressure canceling mechanism (**52**) makes the intake gas pressure to work on an outer face of the cylinder (**23**) of the compression mechanism (**20**).

16. The compressor of claim 15,

wherein the differential pressure canceling mechanism (**52**) makes the intake gas pressure to work on a part opposite the intake passage (**40**) in the outer face of the cylinder

(23).

17. The compressor of claim 15,

wherein the differential pressure canceling mechanism (52) includes an intake pressure chamber (50) formed between the inner face of the sealed container (10) and the outer face of the cylinder (23) and a communication passage (51) that allows the intake pressure chamber (50) to communicate with the intake passage (40) of the compression mechanism (20), and gas pressure of the intake pressure chamber (50) works on the cylinder (23).

18. The compressor of claim 17,

wherein the communication passage (51) of the differential pressure canceling mechanism (52) is formed in the cylinder (23).

19. The compressor of claim 17,

wherein the communication passage (51) of the differential pressure canceling mechanism (52) is formed in an arc shape extending along the inner peripheral face of the cylinder (23).

20. A compressor comprising:

a cylindrical sealed container (10) to which an intake pipe (42) and a discharge pipe (14) are connected;

a compression mechanism (20) that compresses gas introduced from the intake pipe (42) and discharges it into the sealed container (10);

a motor (30) connected to a drive shaft (31) of the compression mechanism (20); and

an elastic support member (65) which supports the compression mechanism (20) and the motor (30), both of which are accommodated in the sealed container (10),

wherein the compression mechanism (20) has a cylindrical outer shape, an intake passage (40) opens in an outer peripheral face of the compression mechanism (20),

the intake pipe (42) is arranged so that a terminal end thereof faces an opening part

of the intake passage (**40**) in the outer peripheral face of the compression mechanism (**20**), and

a sealing mechanism (**S**) for forming a low-pressure space (**81**) that communicates with the intake passage (**40**) and the intake pipe (**42**) is provided in a gap between the outer peripheral face of the compression mechanism (**20**) and an inner peripheral face of the sealed container (**10**) which are face each other.

21. The compressor of claim 20,

wherein at least one O ring (**79**) is arranged around an entire perimeter of the outer peripheral face of the compression mechanism (**20**) at each side of the opening part of the intake passage (**40**) in the outer peripheral face of the sealing mechanism (**S**).

22. The compressor of claim 20,

wherein at least one concave groove (**23c**) is formed around an entire perimeter in the outer peripheral face of the compression mechanism (**20**) at each side of the opening part of the intake passage (**40**),

the sealing mechanism (**S**) includes the concave groove (**23c**) and a ring member (**80**) in an annular shape a part of which is cut out and which is fitted in the concave groove (**23c**), and

an outer peripheral face of the ring member (**80**) is pressed against the inner peripheral face of the sealed container (**10**) by restoring force of the elastically deformed ring member (**80**) which expands naturally in a radial direction so that a gap between the compression mechanism (**20**) and the sealed container (**10**) is sealed.

23. The compressor of claim 22,

wherein the ring member (**80**) is made of metal.

24. The compressor of claim 20,

wherein an oil return passage (**29**) passing through the compression mechanism (**20**) in an axial direction thereof is formed in the compression mechanism (**20**).